We claim as our invention,

1. A zeolite of the faujasite structure having a silica to alumina molar ratio (bulk) of greater than about 13, a unit cell size in the range of from 24.10 to 24.40 Å, and a surface area of at least about 875 m^2/g as measured by the BET method and ASTM D4365-95 with nitrogen adsorption at p/po values of 0.02, 0.03 and 0.04.

2. The zeolite of claim 1, which has an alkali level of less than about 0.5 weight percent based on the zeolite.

3. The zeolite of claim 1, which has a surface area of at least about 880 m^2/g.

4. The zeolite of claim 1, which has a silica to alumina molar ratio in the range of from about 50 to about 1000.

5. The zeolite of claim 1, which has a micropore volume of at least about 0.28 m^2/g.

6. A zeolite as claimed in claim 5, which has a micropore volume of at least about 0.30 m^2/g.

7. The zeolite of claim 1, which has a silica to alumina molar ratio in the range of from about 16 to about 1000, a unit cell size in the range of from 24.20 to 24.35 Å, a surface area in the range of from about 900 to about 1030 m^2/g, and a micropore volume in the range of from about 0.29 to about 0.35 m^2/g.

8. A method of using a zeolite, wherein a high surface area zeolite of claim 1 is used as adsorbent for polar and/or non-polar material.

9. The method of claim 8, wherein the polar material is water and the non-polar material is an aromatic hydrocarbon.

10. A process for the preparation of a high surface area zeolite of the faujasite structure having a surface area of at least about 875 m^2/g which comprises:

a) providing a starting zeolite of the faujasite structure having a silica to alumina ratio of from about 4.5 to about 6.5 and an alkali metal level of less than about 1.5%wt;

b) hydrothermally treating said starting zeolite at a temperature in the range of from 600 to 850 °C and at a partial pressure of steam of about 0.2 to about 1 atmosphere for a time effective to produce a intermediate zeolite having a unit cell size of from 24.30 to 24.45 Å;

c) contacting the intermediate zeolite with an acidified solution comprising an acid and optionally an ammonia salt under conditions effective to produce a high surface area zeolite having a unit cell size in the range of from 24.10 to 24.40 Å, a molar bulk silica to alumina ratio of greater than about 13 and a surface area of at least about 875 m^2/g thereby producing the high surface area zeolite; and

d) recovering the high surface area zeolite.

11. The process of claim 10, wherein in step b) the temperature is in the range of from 650 to 750 °C.

12. The process of claim 10, wherein in step c) solely an acid is present in the acidified solution.

13. The process of claim 10, wherein the acid treatment is applied at a temperature in the range of from 20 to 100 °C.

14. The process of claim 13, wherein the acid treatment is applied at a temperature in the range of from 50 to 100 °C.

15. The process of claim 14, wherein the acid treatment is applied at a temperature in the range of from 80 to 100 °C.

16. The process of claim 10, wherein the acid is hydrochloric or nitric acid.

17. High surface area zeolite obtainable by the process as claimed in claim 10.

18. A method of using a zeolite wherein a high surface area zeolite of claim 17 is used as adsorbent for polar and/or non-polar material.

19. A method of use as claimed in claim 18, wherein the polar material is water and the non-polar material is an aromatic hydrocarbon.